

Teach Yourself Microsoft Excel® 97 in 24 Hours

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This book is dedicated to Hazel, Paul, Anne, and Andrew.

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FIRST EDITION

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The AutoFill Tool

If you have a cell entry that you want to repeat, the AutoFill feature can save you a lot of typing. Highlight the cell that contains the data you want to repeat and put the mouse cursor on the lower-right border of the cell. A + symbol appears at the cursor point. Drag the cursor horizontally if you want to fill cells across a row. Drag the cursor vertically if you want to fill a column of cells.

If you want to disable the AutoFill feature, select Tools | Options, click the Edit tab in the dialog box, deselect the Allow Cell Drag and Drop checkbox, and click OK.

Using AutoFill to Complete a Series

The AutoFill tool is smart enough to recognize certain series and complete them for you. Suppose that you want to enter text labels for each of the 12 months of 1997. All you have to do is enter the first two: Jan97 and Feb97. AutoFill can recognize that you want to list the months in order and will complete the series for you.

To use AutoFill in this situation, type the first two entries in adjacent cells and highlight both cells. Place the mouse cursor on the bottom-right corner of the range and drag the cursor across or down for as many cells as you require month labels. AutoFill continues the series as long as you continue to drag the cursor over the cells. If you continue to drag the tool for more than 12 cells, you get entries such as Jan98, Feb98, and so forth. AutoFill is very "talented" at filling out series.

Similarly, you can use AutoFill to complete sequences of numbers. In Figure 4.6, the second number is 32 less than the first number. If you select these two cells and drag them down seven cells, you get a sequence of negative numbers. If the sequence stops where the cursor is in the figure, the last entry will be -192.

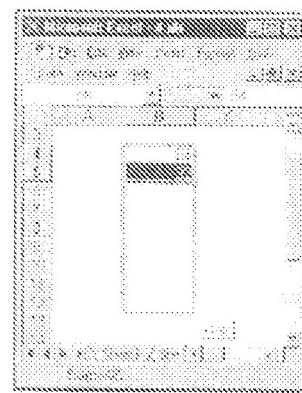


Figure 4.6.
AutoFill can recognize sequences
of numbers and complete the
sequence for you.

When you use AutoFill, you can drag the cursor left, right, up, or down. Although you cannot use AutoFill to fill columns and rows at the same time, you can do them separately.

Here are some examples of sequences that the AutoFill feature can recognize (you actually only need two entries to use AutoFill, but I've shown three entries here so that you can get a better idea of what the sequence looks like):

Monday, Tuesday, Sunday, ...
T1, T2, T3, ...
25, 30, 35, ...
12:20, 12:40, 1:00, ...
01 December 1996, 02 December 1996, 03 December 1996, ...

AutoFill can recognize and fill only those sequences in which the units are a fixed distance apart. AutoFill cannot recognize geometric sequences like 1, 3, 9, 27 or sequences based on various esoteric criteria such as prime numbers or stock market fluctuations. If you are using AutoFill for dates, the distances can be in terms of days, weeks, months, or years. The development of custom-fill series that use more sophisticated formulas to create sequences is discussed in Hour 14.

The AutoComplete Tool

Excel can guess not only what type of data you are entering, it can even sometimes guess what you are going to enter next. Excel can recognize if you are typing the same entry repeatedly within a row or column—regardless of whether the entry is text or text and numbers together. Click a cell in your worksheet and type *Andromeda* (or whatever word you want) in two consecutive cells in a row or column. When you start the second entry in the row or column by typing the letter A, the word *Andromeda* fills the cell instantaneously.

AutoComplete can be irritating when it doesn't type what you want. To turn off the AutoComplete feature, open the Tools|Options menu and choose the Edit tab. Deselect the Enable AutoComplete for Cell Values checkbox and click OK. You can also undo AutoComplete for single or multiple entries by selecting Edit|Undo or pressing Ctrl+Z and repeating as necessary.

Using Automatic Correction Tools

Just as Excel can automate the process of data entry, it can also automate the process of data correction. Excel provides the Undo, AutoCorrect, spell check, and find and replace features to help correct errors as you are entering data or after you have completed the data entry process. All the correction tools described in the following sections are used in Microsoft Word as well.

If you want to indent cells containing text or numeric values, you can choose Format | Cells and then select Alignment from the dialog box. You learned how to align the contents of cells in Hour 4, "Data Entry and Editing in Excel."

You can also change the indentation by clicking either the Decrease Indent or the Increase Indent tool from the Formatting toolbar.



If you want to indent text within a particular cell or group of cells using the Formatting toolbar, you can do so. First, highlight the cell or cells you want to format and then click the Increase Indent icon on the Formatting toolbar. The block of text indents to the right a small amount. Continue clicking this icon to further indent the text, a little at a time.



If you indented the text too far, you can use another toolbar icon to bump it back to the left. First, highlight the cell or cells you want to format and then click the Decrease Indent icon on the Formatting toolbar. The text bumps back to the left a small amount. Continue clicking this icon to bring the text closer to left alignment.

Picking from the List

Excel includes yet another way to speed data entry. Suppose that you are entering data in a row or column, and the various entries repeat themselves throughout the row or column, but not in a consistent pattern (see Figure 5.4). With Pick from List, you can enter each of the possibilities in the row or column, and then select the appropriate entry from a drop-down menu. Select a cell, right-click it to display the popup menu, and choose Pick from List. The items shown are the other entries from the same row; you can choose one of these entries if it is appropriate for the current cell.

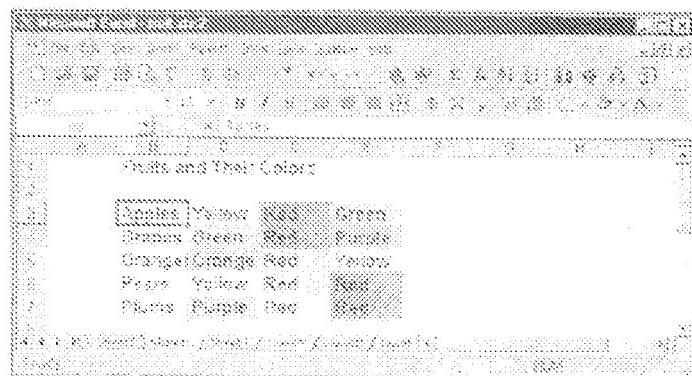


Figure 5.4.
Pick from List entries.

Using AutoFit with Rows and Columns

You can set your rows and columns so that they automatically expand or contract in height and width to accommodate the data they happen to contain. Select the row or column you want to adjust, choose either Format | Rows or Format | Columns, and select AutoFit from

various parts of a list more clearly, and to zero in on the data that is important to you. You can sort alphabetically or numerically in a logical manner with the Sort Ascending and Sort Descending tools. And you can use the Custom AutoFill feature to create lists and custom sort patterns.

Workshop

Term Review

criteria range A range in which you enter the specific filtering criteria for a list.

database A document that stores information in an organized fashion and that is designed for retrieval of information.

field A database term that is equivalent to a column in Excel.

field name The label for a field (equivalent to the label for a column in Excel).

filter With a filter, certain data is hidden or displayed in accordance with specific criteria you specify.

list An internal database—one stored in an Excel worksheet.

outline A summary of the data in an Excel worksheet.

record A database term that is equivalent to a row in Excel.

sort When you sort data, it is organized in a way that makes sense. For example, textual data can be alphabetized, and numeric data can be organized from least to greatest or vice versa. No records are hidden, as they are when you filter data. You can also choose your own sort criteria.

Q&A

Q What does Custom AutoFill do?

A You can use this feature to create lists that the AutoFill tool can recognize.

Q What is AutoFilter?

A AutoFilter is a tool for filtering rows in a worksheet (equivalent to records in a database) so that only the rows you are looking for are displayed.

Q What is Advanced Filter?

A Advanced Filter is a tool for filtering with multiple criteria in place on one or more fields.

Access saves changes to the database automatically. If you want to save the database under another name, select File | Save As from the main menu in Access and enter the pathname you want.

You can return to the original Excel worksheet by clicking the Excel icon on the Windows 95 toolbar. Once back in Excel, you can see that a comment has been automatically inserted to indicate that the list has been turned into a database. Because no links are kept between the worksheet and the database, you must be aware that a "split-source" problem may develop. This means that the data in the Excel list and the data in the Access database will differ if data is later added or changed in only one of the two files. If you do make changes to the Excel worksheet, it's usually easiest to generate the Access database all over again.

Using the AccessLinks Add-In

The AccessLinks add-in is designed to facilitate sharing between Excel and Microsoft Access. You can choose MS Access Form or MS Access Report from the Data menu on the main menu bar. If you do not see these options, you must install the add-in. Choose Tools | Add-ins from the main menu, click the AccessLinks add-in box, and click OK.

Once the add-in is installed, you can select either MS Access Form or MS Access Report from the Data menu on the main menu bar. Choosing Microsoft Access Form allows you to edit an Excel worksheet database. Choosing MS Access Report guides you through the creation of an Access report.

Using the Microsoft Access Form Wizard

Suppose that you want to use Microsoft Access to add entries to an Excel list. The Microsoft Access Form Wizard creates a form in Access that you can use for data entry—and the new data is placed in the Excel list. The form created is inside an Access database; the form has blanks you use for new information or to edit the data needed for each record of the Excel list. To create a Microsoft Access form for an Excel list, follow these steps:

1. Open the Excel worksheet containing the list for which you want to create the Access form.
2. Select a cell in the list.
3. Choose Data | MS Access Form from the main menu.
4. Save the workbook if prompted to do so. You will see the dialog box shown in Figure 19.4.
5. Specify whether you want to create the form in a new database or an existing database. If you choose to create the form in an existing database, you can either enter the filename or browse through the directories to find the file. The filename is generated automatically if you are creating a new database.

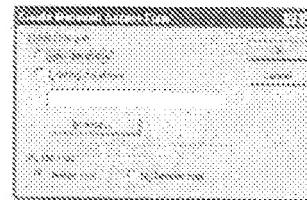


Figure 19.4.
The Create Microsoft Access
Form dialog box.

6. Specify whether or not your Excel data list has a header row. Click OK to display the Form Wizard dialog box shown in Figure 19.5.

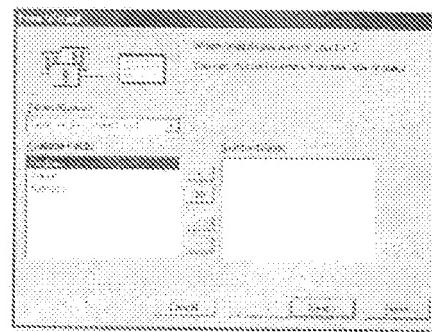


Figure 19.5.
The Form Wizard dialog box.

7. Select the fields from the Excel data list you want to include in your form. To include a single field, highlight it and click the > button. To include all the fields at once, click the >> button.

You can exclude a selected field from the Selected Fields box by selecting the field in the right pane and then clicking the < button; you can move all the selected fields out of the right pane by clicking the < button. Click Next when you have made your selections to display the next wizard dialog box.

The fields you choose to include will be in the form generated by this wizard. For example, if you want the form to include a blank for each of your column headings (Region, Actual, and Forecast), include each of those fields in this dialog box.

8. The next wizard dialog box offers a variety of layout options: Columnar, Tabular, Datasheet, and Justified. To see how each option lays out the form, select its radio button. Choose the one you want for your form and click Next to display the third wizard dialog box. The layout is rather inflexible—you can't choose the margins, offsets, or other features.

9. In the next dialog box, you get to choose the style of background you want for the form. When you select a background choice, you see a sample of how the form appears with that choice. Click Next to display the final dialog box.

10. In the final dialog box, you can specify a title for the form. If you want to view the form when you are finished, select the Open the Form to View or Enter Information radio button (which is selected by default). If you want to modify the design, select the Modify the Form Design radio button. Click Finish to see the form.

Figure 19.6 shows a sample form created using the MS Access Form Wizard. This example could be a form that represents the membership of a particular organization in a particular region, and the forecasted membership in that region. You can scroll through the various entries to see the record you want. Using this form, you can add more entries to the database or edit the ones that already exist. Because the Region, Actual, and Forecast fields were entered in the form, the form allows you to enter a value for Region, a value for Actual, and a value for Forecast.

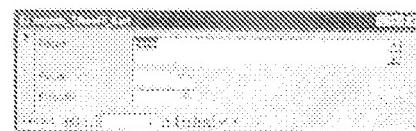


Figure 19.6.
The Microsoft Access form created with
the Form Wizard.

Back in the original Excel worksheet, a View MS Access Form button is placed on the worksheet so that you can view the MS Access form by clicking the icon.

Entering Data with the Access Form

To enter data with the MS Access form that you have created, click the View MS Access icon on your Excel worksheet. If the form can't be found, you see a dialog box asking whether you want to create a new form for the data in the worksheet. Otherwise, Access opens up, and the form you have created appears again.

You can use the form to change the data for any of the records or to add new records. When you switch back to Excel by clicking the Excel icon on the Windows 95 taskbar (usually located at the bottom of your screen), you will find that the changes have been made automatically within the worksheet.

Using the Microsoft Access Report Wizard

If you have an internal database in Excel, you may want to use the power of Access to make a report of it. A *report* organizes and formats the data. To create a Microsoft Access report from a list in an Excel worksheet, follow these steps:

1. Open the Excel workbook and select one of the cells in the data list for which you want to create an Access report.
 2. Select Data | MS Access Report from the main menu to display the dialog box shown in Figure 19.7.

Hour 20

Excel and the World Wide Web

Microsoft Excel 97 has many new features that facilitate the process of linking to and from the World Wide Web. Microsoft is trying hard to make files from the Internet just as accessible from within Excel and other Office 97 programs as any other files from within your own computer. Microsoft Internet Explorer 3.0 and 4.0 are tightly integrated into the Office 97 suite, and you can access files from the outside world as easily as you can those files inside your own computer or on your local network. You can use Excel to access files on the World Wide Web, you can link from Excel to WWW files, and you can turn your Excel worksheets into HTML documents or portions of documents.

In short, you can access files on the Web and you can make your files accessible to other Web users. If you have an Internet connection (either a dial-up or a network connection), Excel makes the process of accessing and linking to and from the World Wide Web simple. You can even use the Web Form Wizard to make online forms, as discussed in Hour 23, "Using Custom Controls, Forms, and Data Validation."

Creating Web Forms

If you have a World Wide Web site, you know the value of soliciting user input. You may even have a business or personal site set up to elicit specific information. Online forms are used to take purchase orders, technical support requests, and other information. You can use Excel to create these forms.

To use the Forms feature, you must have CGI support on your Web site, or you must be running the Microsoft Internet Information Server with the Internet Database Connector. CGI stands for Common Gateway Interface and refers to your site's capability of running programs on the Web server. If you are not familiar with the World Wide Web, ask your system administrator for assistance before you begin the following exercise, particularly with steps 3 through 6.

First, you must create your form so that it contains the controls you need for the user to enter the data you require. When you create a form, you decide which choices the user will be able to make; you make these choices available to the user with controls such as option boxes, list boxes, radio buttons, checkboxes, and so on. The labels on the blanks in the form correspond to the field names in the database.

The form used in the following example is a T-shirt order form, which offers different options for color and neckline styles. Keep in mind that Web forms are of limited usefulness because users who access your form on the Web must have Microsoft Excel on their systems in order to fill out the form.

Once you've created the form in your Excel worksheet, follow these steps to turn it into a Web form:

1. Choose Tools|Wizard|Web Form from the main menu.

If you don't see the Web Form Wizard on the Wizard submenu, you must install it. Choose Tools|Add-ins from the main menu, select the Web Form Wizard checkbox, and click OK. Once the wizard is installed, choose Tools|Wizard|Web Form from the main menu to display the first dialog box of the wizard. (This dialog box is purely informational.)

2. Click Next to display the second dialog box of the Web Form Wizard (see Figure 22.9). This dialog box contains the various controls you can add to your form. The option buttons that are part of the Excel worksheet—such as style Option Button 2—are each listed by name. Of course, you can also use other types of controls such as checkboxes, list boxes, and so forth from the Forms toolbar.

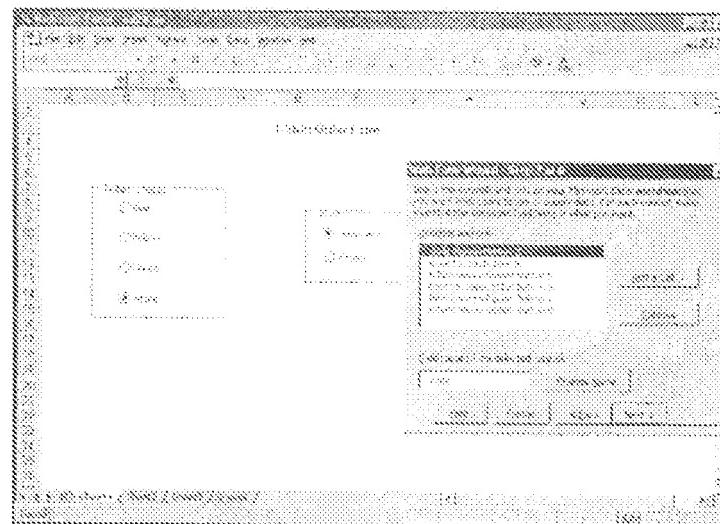


Figure 22.9.
Step 2 of 6 in the Web Form Wizard, along with a typical form.

3. If you want to change the name of a control, do so in the Field Name of Selected Control box. You may want to change the name of a control if you want the control to have a different name on the Web than it does on the worksheet. Click Next to display the third dialog box of the Web Form Wizard.
4. In the third dialog box, select the type of Web server you have and click Next to display the fourth dialog box of the wizard.
5. Decide whether you want to save the Web form as a Microsoft Excel file (which is what you do in most situations) or to save it to your FrontPage Web (which you can do if you are using Microsoft FrontPage, of course). Enter the pathname in the File Path field and click Next to display the Step 5 dialog box of the Web Form Wizard (see Figure 22.10).

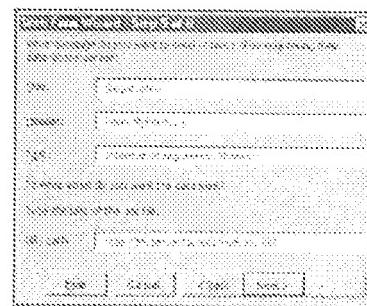


Figure 22.10.
Step 5 of the Web Form Wizard.

6. Specify the message you want your users to see after they submit the data in the online form. This message requires a *title*, which is displayed in the Windows 95 title bar. The *header* is displayed in large, bold text at the top of the page. The text of the page comes below the header. The purpose of this message is to let users know that the data has been entered and received. Type the title, header, and text you want and enter the URL that the .iwc file is to have. Click Next to display the final dialog box of the wizard.

7. The final dialog box gives some general information about placing the files on your server. The wizard has created all the files you need for the online form; you must upload them to the server to make them available to other users. Click Finish to end the wizard. The files you need to upload all have the same name as the .xls file. For example, if the file is myform.xls, all the other files also begin with myform. For more information on how to set up the files on the Web server, search the Online Help topics for Web Form Wizard.

Summary

In this hour, you have learned the basics of creating and running macros. Macros are programs written in Visual Basic for Applications that work within Excel to do specific tasks. Ordinary users can create and use macros without having to do any programming. You can capture the keystrokes required to do a specific task, save the sequence of keystrokes, and then run the macro to reproduce the keystrokes whenever you need to do so.

Another programming task Excel can do is to create a Web form (and the associated files you need to implement it) for use on World Wide Web sites. The Web Form Wizard streamlines the process so that you don't have to do any programming.

Workshop

Term Review

macro A usually small program you can create by recording a series of keystrokes. You can then run the macro as often as necessary to repeat those keystrokes. You can save a macro in the current workbook, a new workbook, or make it available for use in all your Excel workbooks.

keyboard shortcut Two or three assigned keys that, when you press them together, perform a particular task, such as running a macro or saving a file.

The Label Control

Label controls do not "do" anything. In most cases, you are better off entering a label into an Excel cell as usual and then formatting it as you want. You cannot use labels created with the label tool in formulas, nor can you format them. However, with the label tool, you can create labels that overlap parts of cells in a way you cannot do with text in an actual Excel cell.

Click the tool and then click the worksheet where you want to place the control. Drag the pointer until the label control is the size you want. Once you have drawn the label, click inside the box to edit the text.

The Checkbox Control

You use a checkbox control, as its name implies, to check a box if you want a certain option; you uncheck the box if you do not want that option.

Click the checkbox tool in the Forms toolbar and drag a checkbox control on your worksheet. To edit the text of the checkbox, select the control and then right-click it to display the popup menu. Choose Edit Text from the popup menu. Change the text of the checkbox to something that makes sense in context. For example, if you are creating a customer survey form, you might want the text of the checkbox to be

Check here to be added to our mailing list.

You may want to change the settings of the checkbox so that it is either checked or not by default. Choose Format | Control from the main menu to display the Format Control dialog box and select the Control tab. You can set up the checkbox so that its default value is Checked, Unchecked, or Mixed. If you choose Mixed, the box is grayed out so that neither the checked nor unchecked state is preferred.

Choose the Cell Link option to link to the cell reference you want to control. The cell you specify will be given the value TRUE if the checkbox is checked; it will be given the value FALSE if the checkbox is unchecked. The cell reference does not have to be in the same worksheet or the same workbook. In practice, you can use the TRUE or FALSE value in other formulas to determine a particular result. Suppose that you are creating an order form. The checkbox control asks users whether they want their e-mail addresses added to a mailing list. A possible formula could look at the value of the cell link; if the cell's value is TRUE (indicating that the user has checked the box and wants to be added to the mailing list), the formula then looks at the e-mail address entered by the user (elsewhere in the worksheet) and copies this e-mail address to another worksheet.

Each of the other tabs on the Format Control dialog box affects certain properties. You can change the following with each of the other tabs:

Use the Colors and Lines tab to change the appearance of the checkbox

Use the Size tab to change the size of the checkbox

Use the Protection tab to change whether or not the control is locked.

Use the Properties tab to determine the interaction of the control with other cells in the worksheet.

The Option Box Control

Option boxes are used when you want to offer at least two options but you want the choices to be mutually exclusive. For example, on an order form, you may want to offer three color choices for an item. For each item, however, only one of those color choices can be selected. The option box control is perfect for this situation because it allows only one of the group of boxes to be selected at a time. Option boxes are also called *radio buttons*.

In Figure 23.2, three option box controls are drawn and the appropriate text has been inserted. (To edit the text associated with each option box, right-click the control and choose Edit Text from the popup menu.) Each control also has a cell link to cell F13. To specify the cell link, select each option box in turn, display the Format Control dialog box, and click the Control tab. Enter the cell reference in the Cell Link field.

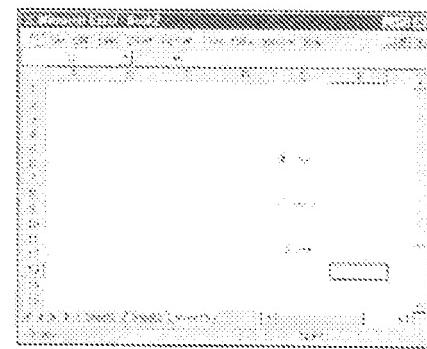


Figure 23.2.
An example showing three option boxes.

You can control the appearance of an option box by displaying the Format Control dialog box, selecting the Colors and Lines tab, and choosing the fill and line options you want from the dialog box.

You can group option box controls that are logically linked together by selecting the group box tool from the Forms toolbar (it's the tool with the letters XYZ on top of the square) and drawing a box around the controls you want to group together. If you do not use a group box control to group a set of option boxes together, all the option boxes in a worksheet are linked together, no matter where they are located.

Click inside the group box to edit the text. You may want to put a title at the top to indicate what the option boxes are about. If you want to edit the text of the option buttons themselves, right-click a button and choose Edit Text from the popup menu.